

Listing of the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A plasma display apparatus comprising:
a plasma display panel with first and second electrodes associated with plasma cells, and
a waveform generator coupled between the first and the second electrodes for supplying, across the plasma cells, a voltage with slopes comprising a main part and a minor part succeeding the main part,
the main part having a duration longer than a formative time lag of the plasma cells, and
the minor part having a smaller amplitude than the main part, wherein the plasma cells are ignited and sustained by the minor part.
2. (Original) A plasma display apparatus as claimed in claim 1, characterized in that the waveform generator is adapted to generate the main part which is sine-wave shaped.
3. (Original) A plasma display apparatus as claimed in claim 2, characterized in that the waveform generator is adapted to generate the main part which comprises substantially one quarter of a sine-wave period lasting 2 to 5 times the formative time lag.

4. (Original) A plasma display apparatus as claimed in claim 1, characterized in that the waveform generator is adapted to generate the main part to form a substantially continuous sine wave.

5. (Original) A plasma display apparatus as claimed in claim 4, characterized in that the substantially continuous sine wave has a period time which is 2 to 20 times longer than the formative time lag.

6. (Original) A plasma display apparatus as claimed in claim 1, characterized in that the waveform generator comprises:

a first waveform generator for generating an alternating voltage having slopes comprising the main part,

a second waveform generator for generating a pulse voltage having slopes comprising the minor part, and

a combining circuit for algebraically adding the alternating voltage and the pulse voltage to supply the sustain voltage.

7. (Original) A plasma display apparatus as claimed in claim 6, characterized in that the first waveform generator comprises an energy recovery circuit having switches and an inductance to form a resonant circuit with a panel capacitance of the plasma panel during the slopes of the alternating voltage, the inductance having a value to obtain a duration of the slopes longer than the formative time lag.

8. (Original) A plasma display apparatus as claimed in claim 7, characterized in that the energy recovery circuit comprises a timing circuit for controlling the switches to couple the panel capacitance to a supply voltage before a resonance current through the inductance becomes zero.

9. (Original) A plasma display apparatus as claimed in claim 7, characterized in that the energy recovery circuit comprises a load arranged in parallel with the inductance.

10. (Original) A plasma display apparatus as claimed in claim 7, characterized in that the inductance is a first winding of a transformer, the second waveform generator is coupled to a second winding of the transformer, and the combining circuit comprises the transformer.

11. (Original) A plasma display apparatus as claimed in claim 7, characterized in that the first waveform generator comprises a transformer with a first and a second winding, the first winding being arranged in a power supply line of the energy recovery circuit, the second winding being coupled to the second waveform generator, wherein the combining circuit comprises the transformer.

12. (Original) A plasma display apparatus as claimed in claim 6, characterized in that the second waveform generator is adapted to generate a pulse voltage which is a substantially rectangular pulse.

13. (Original) A plasma display apparatus as claimed in claim 12, characterized in that the second waveform generator comprises an energy recovery circuit with an inductor with a value selected to obtain a duration of edges of the pulse voltage being less than the formative time lag.